

## CLAIM AMENDMENTS

Claims 1-16 (cancelled)

Claim 17 (currently amended) The hydrocyclone of Claim 16, A hydrocyclone, comprising:

a separation chamber including an apex adapted to produce an underflow discharge with a cone angle;

a splash skirt connected to the apex adapted to receive the underflow discharge; and

a vibration sensor mounted on the splash skirt adapted to produce an output signal indicative of a variation of the cone angle of the underflow discharge;

wherein the vibration sensor produces an output signal relative to a baseline threshold set to a level corresponding to a magnitude of vibration produced by a normal impact of the underflow discharge on the splash skirt.

Claim 18 (previously presented) The hydrocyclone of Claim 17, wherein said normal impact corresponds to a pre-determined cone angle.

Claim 19 (previously presented) The hydrocyclone of Claim 18,  
wherein the vibration sensor is an ultrasonic sensor.

Claims 20-22 (cancelled)